CORRESPONDENCE

Basal Narcosis in Anaesthesia

SIR,—In the most interesting paper by Dr. H. W. Featherstone in the *Journal* of February 24th (p. 322) there is an unfortunate printer's error in the figures of avertin administrations conducted by myself. I am stated to have given avertin in more than 12,000 cases, whereas the number which appeared in my letter to Dr. Featherstone was 1,240.

The same issue (p. 327) contains "A Warning Regarding Basal Narcotics," by Mr. R. J. McNeill Love, and in support of it he quotes a fatal case following the administration of avertin, which, in the summing up, he attributes to this drug, although in his introductory remarks he states that narcotics were "indubitably a contributory cause." There seems to be every reason for accepting the latter explanation, for the patient had received morphine grain 1/4 and hyoscine grain 1/100, the depressing effect of which on respiration must have been profound. I have drawn attention elsewhere (*Clinical Journal*, March 18th, 1931) to the all-important action of morphine in intensifying the action of avertin, and would wish to support Mr. McNeill Love's warning.—I am, etc.,

London, N.W.1, Feb. 24th. FRANCIS E. SHIPWAY.

*** We much regret the misprint.—Ed. *B.M.J.*

SIR,—I am particularly interested in Mr. McNeill Love's article, and also in your leader on the same subject. It is time that the whole question of premedication before operation should be carefully considered. There is too great a tendency to-day to consider the wishes of a patient who has heard, either from friends or through the popular press, that insensibility can be produced before leaving the bedroom. For a long time now I have refused to allow premedication in my cases as a routine measure. Avertin is perhaps in a different category, and I must confess that I have at times succumbed to the pleadings of a patient. Premedication, either by barbiturates or even by doses of morphine, is unnecessary and sometimes dangerous. That such drugs assist the anaesthetist in getting the patient under cannot be gainsaid. This, however, is often offset by the alarm of shallow breathing—sometimes even cessation. It is, in my view, unfair to accede to a patient's desire for pre-anaesthetic medication without warning the patient first of the risk that is being run. The administration of any drug of value is accompanied by its own peculiar dangers. The potent drug that has no dangers has yet to be discovered. Premedication makes no provision for idiosyncrasy.

Anaesthetists look upon this question from a very different aspect from the surgeon. Their responsibility ends with getting the patient off the table. But patients are sometimes exceedingly ill after these premedicatory measures, and especially is this true in diseases such as exophthalmic goitre. The old-fashioned, very light, open ether—as practised and taught by my old teacher, Sir James Berry—is, I am convinced, the most satisfactory method in these cases. This is especially true to-day, when the operation is rendered so much safer by the previous administration of Lugol's solution. Of course, cases must be considered on their merits, and there are patients for whom premedication may be desirable; but I cannot believe that patients have changed so much in the last few years as to require the routine use of premedication before an operation can be satisfactorily performed. After all, it is for the anaesthetist, and not for the surgeon, to anaesthetize.—I am, etc.,

London, W.1, Feb. 23rd. A. E. MORTIMER WOOLF.

SIR,—In the article by Mr. McNeill Love the death of a patient after an operation for a toxic goitre is attributed to the use of avertin for basal anaesthesia. It appears to us, however, that the facts as related in the article point to an entirely different conclusion.

It is well known that the combination of avertin with more than a very small dose of morphine and hyoscine introduces a real danger of respiratory depression. If not more than 1/8 grain of morphine is given the danger is almost non-existent; but the dose which Mr. McNeill Love's patient received—1/4 grain of morphine with 1/100 grain of hyoscine—was, in our opinion, almost certainly responsible for the failure of respiration. We believe that it is also wiser to reduce the strength of other drugs, such as novocain, in combination with avertin, and in our experience it is quite unnecessary to use novocain of a greater strength than 0.5 per cent., whereas this patient received 1 per cent. of novocain. It would also perhaps have been wiser to administer a carbon dioxide mixture rather than oxygen, if stimulation of the respiratory centre was required.

In our experience the administration of rectal avertin for operations upon patients with toxic goitre is a particularly safe form of basal narcosis, provided that the dosage of associated drugs is carefully regulated in accordance with knowledge of their action. Mr. McNeill Love observes that it is his practice to administer two-thirds of the official dose, and to supplement its effects with gas and oxygen. With the latter part of this observation we are in agreement, though it might be remarked that patients with a metabolic rate that is higher than normal are better able to deal with a full dose of avertin than individuals whose metabolic rate is normal. This constitutes an additional safeguard in using avertin as a basal narcotic in treating toxic goitre.—We are, etc.,

GEOFFREY KEYNES.
C. LANGTON HEWER.

London, W.1, Feb. 24th.

SIR,—The present attempts to assess the place of the barbiturates in therapeutics is of interest to all anaesthetists, in view of the wide differences of opinion displayed by experienced clinicians. There seems no doubt that these drugs can be dangerous. But so can morphine and chloroform in untrained hands, and no one refuses to use them on this account. By reason of accumulated experience we have learnt when to use them, in what doses, and, what is more important, when not to use them. In the case of the basal anaesthetics we have not yet reached this desideratum. Thus fatalities are attributed to their use which are due in reality to their misuse.

The article by Mr. McNeill Love fully illustrates this point. In the first of the two cases there described avertin was combined with an injection of 1/4 grain of morphine and 1/100 grain of hyoscine—a highly dangerous procedure. Moreover, the author states that he gave "4.4 c.cm. of avertin, which is *the recognized dose* for a patient weighing 7 stone" (the italics are mine). Even with avertin there exists idiosyncrasy, and it is safer to regard the dose calculated according to body weight not as the *recognized dose*, but as the *maximum dose*. Satisfactory narcosis will often occur with two-thirds of the calculated dose, in which cases the calculated dose would constitute an overdose.

In the author's second case oral nembutal with 1/6 grain of morphine was combined with open ether. Here I only wish to point out that, since nembutal entirely masks the signs of anaesthesia, it is easy to give an overdose of ether using this method. I feel myself that, with nembutal, open ether unnecessarily increases the risk to the patient, and that nitrous oxide and oxygen, with such small

amounts of ether as may be necessary from time to time, is better.

It is only by articles such as that by Mr. McNeill Love that the profession will be enabled, by pooling its experience, to arrive at the correct technique for basal anaesthetics, the correct dosage, their indications and contraindications.—I am, etc.,

London, W.1, Feb. 24th. R. BLAIR GOULD.

Medical Education

SIR,—With the general trend of Dr. Arnold Gregory's paper (*Supplement*, February 24th, p. 75) there will no doubt be general agreement. In some details, however, it seems to me open to criticism. I doubt, for example, whether it would be wise to spend less time in teaching students the signs and symptoms of disease in order to teach them something of the psychology of each individual patient. Psychology is a very difficult subject; a mere smattering of it would be of little or no practical value.

Sir James Mackenzie's work requires no recommendation; but can an undergraduate be expected to feel much interest in "the earliest deviations from the normal" or in incipient diseases until he has learned their classical features when fully developed? The general practitioner has this field of incipient diseases all to himself, but I am not aware that anything of much practical importance has resulted hitherto—nothing that an undergraduate might be expected to know. When he enters practice he will have almost daily opportunities of supplementing his standard textbooks.

Bearing in mind that the educational problem of the moment is how to *lighten* the present curriculum, and at the same time turn out men with a better general education and better equipped for service to their patients, one doubts whether it is really necessary to stress the importance of purely clinical work. This may seem heterodoxy to some. But it goes without saying that facts ascertained by the unaided senses must always be the foundation on which a diagnosis is based. Every general practitioner has to employ his senses every day in clinical investigations, and if he employs them conscientiously he will automatically acquire in time "clinical instinct," more or less. The fact is that "clinical" work is imperative before and after graduation. What is not so imperative but, occasionally at any rate, more important is, for example, how to distinguish "the 'flu" from early pulmonary tuberculosis; a primary from a secondary anaemia; glycosuria from diabetes; a pneumococcal or streptococcal tonsillitis from diphtheria; or how to judge of the functional efficiency of the kidneys in a case of albuminuria. One might mention other common examples in which "the clinical instinct of the master clinician" usually requires to be supplemented. Can the general practitioner of the future be expected to apply up-to-date methods in arriving at important decisions in such common ailments as these, or must he continue to delegate all but purely "clinical" diagnosis to others?

I do not presume to answer this question, but I feel very strongly that every medical student should have a sound practical training in laboratory technique in so far as it is relevant to his future work. If he has such a training he may utilize it in after years, or he may not. But if his training is defective in this respect he will not acquire a laboratory technique in general practice automatically, as he will in some measure acquire a "clinical instinct," this being conditioned by experience and natural aptitude rather than by pre-graduate training.—I am, etc.,

Manchester, Feb. 26th. J. STAVELY DICK.

Ovulation and Menstruation

SIR,—In his paper on ovulation and menstruation in the *British Medical Journal* of January 6th, Dr. Wilfred Shaw makes rather ungracious reference to the views which have been expressed by Corner, Hartman, and myself as to the possibility of anovulatory menstruation in the human female. He particularly seems to find fault with my own statement that the discussion as to what is meant by "menstruation" has become a "mere play on words," as I believe it to be. The time-honoured definition of menstruation is that it is a periodic physiologic bleeding from the uterine mucosa, occurring most often at about four-weekly intervals. That such a bleeding can occur without ovulation permits of no doubt, and it is not clinically distinguishable from the far more common ovulatory type. If Dr. Shaw knows of any method of making this distinction short of histological examination, we would all be grateful for the information. That the two types of menstruation present both histological and physiological differences we know as well as he, and I have repeatedly emphasized this point.

Every gynaecologist accepts the fact that functional menorrhagia, often very slight and characteristically periodic, is not associated with ovulation. That in some women with normal periods ovulation does not occur I have shown by the examination of the mucosa just before the expected menstrual bleeding, and others have done the same. If Dr. Shaw would systematically study the premenstrual mucosa of sterile women in whom other causes of sterility have been eliminated, I feel sure that he likewise would find some instances of this sort. One would get the impression from Dr. Shaw's critique that we look upon this type of menstrual bleeding as common when exactly the reverse has been stated in my several papers touching upon the subject. The other viewpoint of menstruation is that it is a periodic uterine bleeding, dependent upon ovulation, and associated with characteristic post-ovulatory secretory changes in the endometrium. If Dr. Shaw likes this definition, the "American school," to which he makes such unkind reference, has no objection. It is this distinction which I designated as a "play on words," a mere matter of definition. There are other instances of anovulatory periodic bleeding which offer unimpeachable evidence on this point, such as, for example, the often typically menstrual bleeding seen with granulosa-cell tumours in very young children or in women far beyond the menopause. Here there is an abundance of the follicle hormone, with no ovulation or corpora lutea.

The whole subject of reproductive endocrinology is still too unsettled to justify any such dogmatic criticism as Dr Shaw has indulged in. Many of us, for example, do not agree with him in some of his views, not always supported by scientific evidence, on uterine haemorrhage, and I feel sure that there will be no general agreement with the statement in his recent paper, based on a relatively small material, that "ovulation is restricted to about the fourteenth day of the cycle." Nor do I share his un-Hunterian disdain for comparative studies, especially upon the monkey, from which we have already learned so much as to reproductive physiology. My own work, I should add, is, like that of Dr. Shaw, practically entirely with human material. There can be no objection to honest differences of opinion, but no worker in this field has as yet won the right to the oracular position which Dr. Shaw appears to have assumed in summarily waving aside the views of others no less anxious than he to arrive at the truth.—I am, etc.,

Baltimore, Md., U.S.A., Feb. 10th. EMIL NOVAK.